APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/485,881	05/04/2000	TOSHIHARU KOSHINO	08861-376US	6967

570   7590   12/31/2003

AKIN GUMP STRAUSS HAUER & FELD L.L.P.
ONE COMMERCE SQUARE
2005 MARKET STREET, SUITE 2200
PHILADELPHIA, PA 19103-7013

EXAMINER
VENT, JAMIE J

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)
Office Action Summary	09/485,881		KOSHINO ET AL.
	Examiner		**Art Unit**
	Jamie Vent		2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 May 2000</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-59</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-59</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u>.

4)☐ Interview Summary (PTO-413) Paper No(s). _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

Specification

The title of the invention is objected to. A new title is required that is clearly

indicative of the invention to which the claims are directed in a more concise form.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1.   Claims **1, 2, 3, 4, 12, 13 14, 15, 16, 32, 33, 37, 38, 39, 40, and 41** are rejected

under 35 U.S.C. (b) as being unpatentable by Koudo et al (US 5,956,307).

[claims 1 and 32]

2.   In regard to Claims 1 and 32, Koudo et al discloses a disk apparatus and an

audiovisual data processing apparatus comprising:

- Disk medium capable of recording/playing back data (Figure 1 element 1);

- External disk interface and apparatus means for controlling

    record/playback of audiovisual data for a disk apparatus (Figure 1 Element

    1 shows an external disk while Element 5 and 7 depict the external disk

apparatus while Element 3 shows the external disk interface of the disk

apparatus);

- Buffer memory for temporarily storing audiovisual data, disposed between

   said external disk interface means and said audiovisual apparatus

   interface (Figure 1 Element 13, Buffer RAM temporarily stores the

   audiovisual data while being between the external disk apparatus

   (Element 5 and 7) and external disk interface (Element 3);

- Buffer memory control means for controlling the input/output of said

   audiovisual data for said buffer memory (Figure 1 Element 30, 31, and 33

   controls the input/output of the data into the buffer memory);

- Audiovisual frame detection means for detecting audiovisual frame

   boundaries from said audiovisual data for outputting a detection signal

   (Figure 1 Element 11 detection circuit that is responsible for

   "synchronization detecting circuit 11 which extracts synchronizing signal

   recorded in each frame" (Column 2 Lines 28+) thereby detecting the frame

   boundaries of the data);

- Data division management means for dividing said audiovisual data

   depending on said detection signal and forming the management

   information of said divided data (Figure 5 Element 49 shows the data

   division management section of the disk apparatus);

- Data division management means for dividing said audiovisual data in

   accordance with said audiovisual frame boundaries and for forming the

management information of said divided data (Figure 5 element 53 divides the audiovisual data accordance with the audiovisual boundaries);

- Writing means for writing said audiovisual data on said disk medium in accordance to disk management information (Figure 5 Element 45 to Host I/F where the data is taken to the computer and be written onto a CD/ROM or the computer memory); and

- Wherein, said external disk interface means is configured to transmit said audiovisual data to said disk apparatus in accordance with said management information (Figure 5 Element 51 and Element 52 controls the disk apparatus according to the disk management information).

[claims 2 and 33]

3. In regards to Claims 2 and 33, Koudo et al further discloses a disk apparatus and an audiovisual data processing apparatus comprising:

- Data addition means for generating record data packets by adding predetermined data to said audiovisual data in accordance with said management information (Figure 5 Element 50 data is added between element 47 and 55 by predetermined data from the disk);

- Writing means writes the recorded data packets on disk medium (Figure 5 Element 47 writes to the host I/F where the data is taken to the computer and can be written onto the disk medium)

[claim 3]

4. In regards to Claim 3, Koudo et al further discloses a disk apparatus where the data

addition means comprises input data counter means for measuring the amount of

audiovisual data input externally (Figure 24 Element 11 goes to the signal processing

clock-signal circuit 23 which contains a 1152 counter Figure 25 Element 231), and

additional data generating means for generating additional data in accordance with said

measured amount of audiovisual data (Figure 24 while additional data is generated in

Element 24 bugger write control circuit).

[claim 4]

5. In regards to Claim 4, Koudo et al further discloses the said data addition means

comprises output data counter means for measuring the amount of audiovisual data

output from said buffer memory, and additional data generation means for generating

additional data in accordance with said measured amount of audiovisual data (Figure 24

element 23 connects to the buffer read control circuit which allows for measurement of

audiovisual data output as well as Element 21).

[claims 12 and 37]

6. In regards to Claims **12 and 37**, Koudo et al discloses a disk apparatus and

audiovisual data apparatus comprising:

- Disk medium capable of recording/playing back data (Figure 1 element 1);

- record/playback means for recording/playing back data on said disk

  medium (Figure 1 shows the playback of a disk medium while the

  recording is described in Column 1 Lines 9+ "..reproducing method for a

  disk in which coded data are recorded..");

- External disk interface and apparatus means for controlling

  record/playback of audiovisual data for a disk apparatus (Figure 1 Element

  1 shows an external disk while Element 5 and 7 depict the external disk

  apparatus while Element 3 shows the external disk interface of the disk

  apparatus);

- Buffer memory for temporarily storing audiovisual data, disposed between

  said external disk interface means and said audiovisual apparatus

  interface (Figure 1 Element 13, Buffer RAM temporarily stores the

  audiovisual data while being between the external disk apparatus

  (Element 5 and 7) and external disk interface (Element 3);

- Buffer memory control means for controlling and storing the input/output of

  said audiovisual data for said buffer memory (Figure 1 Element 30, 31,

  and 33 controls the input/output of the data into the buffer memory while it

  is temporarily stored in the buffer RAM element 13); and

- Audiovisual frame detection means for detecting audiovisual frame

  boundaries from said audiovisual data for outputting a detection signal

  (Figure 1 Element 11 detection circuit that is responsible for

  "synchronization detecting circuit 11 which extracts synchronizing signal

  recorded in each frame" (Column 2 Lines 28+) thereby detecting the frame

  boundaries of the data).

[claims 13 and 38]

7. In regards to Claims 13 and 38 Koudo et al further discloses a disk apparatus and an audiovisual data apparatus comprising a transmitted/received data amount calculation means for calculating the amount of data input/output to said buffer memory controls means on the basis of the amount of audiovisual frame boundaries (Figure 8 element 50 the microprocessor calculates the amount of input/output into the buffer manager, element 472).

[claims 14 and 39]

8. In regards to Claims 14 and 39 Koudo et al further discloses a disk apparatus and an audiovisual data apparatus comprising a frame address management means for storing address values in said buffer memory corresponding to said audiovisual data at said audiovisual boundaries (Figure 8 Element 55 stores address values from the buffer manager 472).

[claims 15 and 40]

9. In regards to Claims 15 and 40 Koudo et al further discloses a frame address management means for storing address values in said buffer memory corresponding to said audiovisual data at said audiovisual boundaries, and access address control means for controlling the access addresses of said buffer memory control means in accordance with the addresses of said frame address management means (Figure 5 shows a more detailed picture of the microprocessor 50 with address control for controlling the buffer memory).

[claims 16 and 41]

10. In regards to Claim 16 and 41 Koudo et al further discloses a data output timing

control means for controlling the output timing of said audiovisual data in

synchronization with the timing of detecting audiovisual frames (Figure 5 the data is

controlled y the element 52 which controls the spindle motor. The spindle motor

synchronizes the timing of the detection of the audiovisual frames due to control of the

data entering the apparatus).

11.   Claims **17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 31, 42, 43, 44, 45,**

46, 47, 48, 52, 53, 54, 55, 56, 57, 58, 59 are rejected under 35 U.S.C. (b) as being

unpatentable by Gushima et al (US 5,737,481).

[claim 17 and 52]

12. In regards to Claim 17 and 52 Gushima et al discloses a data apparatus and an

audiovisual data processing apparatus comprising:

- disk medium capable of recording/playing back data (Figure1 Element 1

  disk medium capable of recording and playback features);

- external disk interface means for controlling record/playback of

  audiovisual data for an external disk apparatus (Figure 14 Element 74

  shows the external command for control of recording and playback of the

  audiovisual data);

- recording area management means for managing and updating the

  recording area information on recorded audiovisual data recorded in said

disk apparatus (Figure 9A shows a circuit that is used to manage and update the block identification data in the disk apparatus system);

- recording area management means manages and updates the record start address information of the head audiovisual frame data of said recorded audiovisual data, the record start address information of the end audiovisual frame data of said recorded audiovisual data and the head address information of the unrecorded area on said disk medium, and carries out writing in predetermined areas on said disk medium (Table 5 shows the hexadecimal numbers that are put into the address information when a function is being requested or performed. As stated in Column 38 Lines 11+ when the rotation speed of the disk 1 reaches the predetermined rotation speed and the head has moved to the sector where the recording is started, the recording control command becomes normal recording.)

[claims 18, 19, and 20, and 53]

13. In regards to Claim 18, 19, 20, and 53 Gushima et al further discloses a data apparatus and an audiovisual data processing apparatus wherein said recording area management completes the following:

- updates the record start address information of the end audiovisual frame data of said recorded audiovisual data and the head address information of the unrecorded area on said disk medium, when the record stop or record standby processing of said audiovisual data is carried out (Figure

16 the addresses is updated at the end of each audiovisual frame as seen

by s1, s2, s3, and s4);

- Sets the record start address of the head audiovisual frame data of said

  recorded audiovisual data at the record start address of the end

  audiovisual frame data of said recorded audiovisual data and the head

  address of the unrecorded area on said disk medium in response to a

  request for erasing said recorded audiovisual data from an external

  apparatus (Table 5 shows the recording control command that is

  expressed in eight bit data which sets the start address at the end of the

  audiovisual frame);

- Temporarily stores the record start address of the end audiovisual data

  and the head address of the unrecorded area on said disk medium as the

  record start address of the pre-erasure and audiovisual frame data and

  the head address of the pre-erasure unrecorded area, respectively, in

  response to a request for erasing said recorded audiovisual data from an

  external apparatus (Figure 14 shows the buffer memory that temporarily

  stores the record start address as shown in Figure 16);

[claim 21]

14.   In regards to Claim 21, Gushima et al discloses a data apparatus and an

audiovisual data processing apparatus wherein said recording area management

means for managing the head address of the audiovisual frame data being recorded or

played back or the head address of the audiovisual frame data to be recorded or played

back next on said disk medium (Figure 16 the recording data and the rate variation management information for managing the addresses before it is played back in the recording data stream).

[claim 22]

15.   In regards to Claim 22, Gushima et al discloses a disk apparatus wherein address management means selects the address of the disk medium, from the end or head audiovisual frame data of said recorded audiovisual data managed by said recording area management means as the head address of the audiovisual frame data to be recorded/played back next in response to a fast forward or rewind request from an external apparatus (Figure 16 the management information decodes the information and thereby selects the address of the disk medium).

[claim 23]

16.   In regards to Claim 23, Gushima et al, further discloses playback control means for carrying out playback control for said audiovisual data on the basis of said recording area information or said head address information (Figure 24 shows the playback control means of the system).

[claim 24]

17.   In regards to Claim 24 Gushima et al further discloses a record management means for carrying out record control for said audiovisual data on the basis of the information managed by said recording area management means or said address management means (Figure 24 the system controller manages the record control with the recording setting coming into the system).

[claim 25]

18.   In regards to Claim 25 Gushima et al further discloses a searching means for

searching for audiovisual data recorded on said disk medium on the basis of an

absolute track number or time code in response to a search request from an external

apparatus (Figure 25A Element 148 goes to the absolute track number or time that is

entered by the user in element 202 and is processed through the system controller.)

[claims 26 and 27]

19.   In regards to Claims 26 and 27 Gushima et al further discloses a disk apparatus

that detects the following:

- predetermined information from among recorded audiovisual data and if

  the data is detected by said information detection means, mark

  information management means for managing and updating at least the

  record start address information corresponding to the audiovisual frame

  data from which said predetermined information is detected and

  information included in said audiovisual frame data (Figure 23a)

- mark information notification means for notifying a series of mark

  information managed by said disk apparatus to an external apparatus

  (Figure 23 a the movements of heads will output information to the system

  through an external apparatus such as a display).

[claims 28, 29, 30, 31, 45, 46, 58, and 59]

20.   In regard to Claims 28, 29, 30, 31, 45, 46, 58, and 59 Gushima et al discloses a

disk apparatus that comprising:

- Mark command receiving means for receiving a mark addition request from an external apparatus (Figure 23a is receiving mark information from an external apparatus such as a remote control);

- Mark information management means, in response to a mark addition request from said external apparatus for managing and updating at least the record start address information corresponding to the audiovisual frame data being recorded or played back at the time of the generation of said mark addition request and the time code information or the absolute track number information included in said audiovisual frame data (Figure 23c)

- Mark information notification means for notifying a series of mark information managed by said disk apparatus to said external apparatus (Figure 23a the zoned information onto the disk allows the external apparatus to be notified).

[claim 42]

21.   In regard to Claim 42 Gushima et al discloses an audiovisual data processing apparatus comprising:

- External disk interface and apparatus means for controlling record/playback of audiovisual data for an external disk apparatus (Figure 14 Element 74 external command);

- Recording area management means for managing and updating, as the area information of the recorded audiovisual data recorded in said disk apparatus, the record start address information of the head audiovisual frame data of said recorded audiovisual data, the record start address information of the end audiovisual frame data of said recorded audiovisual data and the head address information of the unrecorded area in said disk apparatus, and for carrying out writing in predetermined areas in said disk apparatus (Figure 16 shows recording area management information).

[claim 43]

22.   In regards to claim 43 Gushima et al discloses an audiovisual data processing apparatus further comprising:

- Address management means for managing the head address of the audiovisual frame data being recorded or played back or the head address of the audiovisual frame data to be recorded or played back next by said disk apparatus (Figure 16 the information is managed of the head address in respects to s1, s2, s3, and s4);

- External disk interface controls the record/playback of audiovisual data in accordance with the sequence of the addresses in said disk apparatus (Figure 14 Element 74).

[claim 44]

23.   In regards to claim 44 Gushima et al discloses an audiovisual data processing apparatus comprising:

- information detection means for detecting discontinuous points at least in date/time data, time codes or absolute track numbers from among audiovisual data to be recorded on said disk apparatus and in the case that predetermined information is detected by said information detection means, mark information management means for managing (Figure 16 detects frames or lack of frames and therefore the track numbers result from this process);

- updating at least the record start address information corresponding to the audiovisual frame data from which the predetermined information is detected and the time code information or the absolute track number information included in said audiovisual frame data in said disk apparatus (Figure 16 updating occurs once the frame is detected and deleted);

- external disk interface means controls record/playback of audiovisual data in accordance with the sequence of the addresses in said disk apparatus (Figure 16 Element 74).

[claims 47 and 48]

24.   In regards to claims 47 and 48 Gushima et al discloses an audiovisual control method comprising:

- step of temporarily storing audiovisual data in a buffer memory (Figure 1 Element 4 temporarily stores the audiovisual data);

- step of detecting the audiovisual frame boundaries of said audiovisual data (Figure 16 detection of frame boundaries);

- step of dividing said audiovisual data in accordance with said detected audiovisual frame boundaries, and of forming the management information of the divided audiovisual data (Figure 16 s1, s2, s3, s4 divides the boundaries);

- step of transmitting said audiovisual data to a disk medium in accordance with said management information (Figure 23a transmitting of data);

- step of generating record data packets by adding predetermined data to said divided audiovisual data (Figure 23b).

[claim 54, 55, and 56]

25.   In regard to claim 54 further Gushima et al discloses an audiovisual control method further comprising:

- a playback/recording control step of carrying out playback control of said audiovisual data on the basis of said area information or said head address information (Figure 1 Element 5 controls the recording while Figure 24 playback is controlled by the system controller and the element 139.);

- Search step of searching for audiovisual data recorded on said disk medium on the basis of an absolute track number or time code in response to a search request from an external apparatus (Figure 11);

[claim 57]

26.   In regard to claim 57 Gushima et al further discloses an audiovisual control method comprising:

- Information detection step of detecting discontinuous points at least in date/time data, time codes or absolute track numbers from among audiovisual data to be recorded (Figure 13)

- Predetermined information is detected by information detection step, a mark information management step of managing and updating at least the record start address information corresponding to the audiovisual frame data from which said predetermined information is detected and the time code information or the absolute track number information included in said audiovisual frame data (Figure 23a);

Record/playback is carried out in accordance with the sequence of the address on said disk medium at said record/playback processing step (Figure 1 Element 5 controls the recording while Figure 24 playback is controlled by the system controller and the element 139.).

27.   Claims **49, 50, and 51** are rejected under 35 U.S.C. (b) as being unpatentable by Boyce (US (US 5923814).

[claims 49 and 50]

28.   In regards to claims 49 and 50 Boyce discloses an audiovisual control method comprising:

- step of reading selected audiovisual data from a disk medium (Figure 9 shows data being read into the system);

- step of storing said read audiovisual data in buffer memory (Figure 9 Element 902 data buffer stores the read audiovisual data);

- step of generating stream data by combining said stored audiovisual data and externally outputting said stream data continuously (Figure 62 shows the stream data being generated);

- Audiovisual data recorded on said disk medium is thinned out in audiovisual frame units at said recording step (Figure 9 Element 904 data is thinned out);

- Audiovisual data in said buffer memory is combined in audiovisual frame units at plural times and output at the step of externally outputting said stream data continuously (Figure 9 shows the audiovisual frames that is delivered to the switch so it can be outputted continuously with the stream data).

[claim 51]

29.   In regard to claim 51 Boyce discloses an audiovisual control method comprising:

- Step of selecting audiovisual data recorded on a disk medium (Figure 6b the data selects the data to be recorded);

- Step of reading said selected audiovisual data from disk medium (Figure 6a-6b);

- Step of extracting audiovisual data to be output externally from said read audiovisual data (Figure 6a element 24);

- Step of storing said extracted audiovisual data in a buffer memory (Figure 9)

- Step of generating stream data by combining above-mentioned stored audiovisual data and a step of externally outputting said generated stream data (Figure 6a the *stream data enters and is combined with selected data at element 18)..*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

30.   Claims 5, 6, 7, 8, 9, 10, 11, 34, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koudo et al (US 5956307) in view of Boyce (US 5923814).

[claims 5, 6, and 34]

31. In regard to Claims **5, 6 and 34**, Koudo et al discloses the disk apparatus and an audiovisual data processing apparatus comprising:

- Disk medium capable of recording/playing back data (Figure 1 element 1);

- External disk interface and apparatus means for controlling record/playback of audiovisual data for a disk apparatus (Figure 1 Element

1 shows an external disk while Element 5 and 7 depict the external disk

apparatus while Element 3 shows the external disk interface of the disk

apparatus);

- Buffer memory for temporarily storing audiovisual data, disposed between

   said external disk interface means and said audiovisual apparatus

   interface (Figure 1 Element 13, Buffer RAM temporarily stores the

   audiovisual data while being between the external disk apparatus

   (Element 5 and 7) and external disk interface (Element 3);

- Buffer memory control means for controlling and storing the input/output of

   said audiovisual data for said buffer memory (Figure 1 Element 30, 31,

   and 33 controls the input/output of the data into the buffer memory while it

   is temporarily stored in the buffer RAM element 13); however,

Koudo et al lacks the following:

   o Playback data selection means for selecting said audiovisual data

      to be output externally from among said audiovisual data recorded

      on said disk medium

   o Playback data selection means for selecting said audiovisual data

      to be transmitted to said external audiovisual apparatus interface

      means from among said audiovisual data recorded in said disk

      apparatus

     o   Reading means for reading said audiovisual data selected by said

         playback data selection means from said disk medium to said

         buffer memory via said external disk interface means

     o   Stream data generation means for generating stream data by

         combining the data stored in said buffer memory and for externally

         outputting said stream data continuously to an external apparatus

         via said external audiovisual apparatus interface.

Boyce discloses an apparatus for performing video data reduction with a method

for playback data selection, as seen in Figure 7 Element 65, selects the audiovisual

data that is output externally to the display device. The standard playback operation of

each of the video tape recorders described with regard to playback operation, the video

tape recorders rotate the head wheel at a pre-selected rate of rotation and move the

tape at a pre-selected standard play tape speed when reading the audiovisual data

selected by said playback data selection from the disk medium(Column 27 Lines 50+).

As seen in Figure 7 the data is sent from playback data selection circuit 65 to the

playback data processing circuit where video/audio data bit stream is generated and

externally outputted to the display device.

Therefore, it would have been obvious one with ordinary skill in the art at the time

of the invention was made to modify the apparatus for reproducing data from disk,

disclosed by Koudo et al, to incorporate a playback data selection that selects, reads

and generates the audiovisual data as disclosed by Boyce. The addition of the

playback data selection would allow for users to control the video/audio control method

of reproducing method in a manner that would allow for more precise reproducing and

recording of video/audio data.

[claims 7 and 35]

32. In regards to Claims 7 and 35, Koudo et al discloses a disk apparatus that contains

a buffer memory means that selects said audiovisual data for external output in said

buffer memory on the basis of said storage address, outputs said selected audiovisual

data (Figure 57 RAM write/read address generating circuit 34/35 generates a write/read

address thereby controlling the audiovisual data output on the basis of the storage

address). The buffer memory controls means selects audiovisual data for external

output in said buffer memory, as seen in Figure 8 Element 472 buffer manager.

[claim 8]

33. In regards to Claim 8, Koudo et al discloses a disk apparatus that contains a buffer

memory but lacks the following:

- o play back data selection that selects audiovisual data to be output

    externally in audiovisual frame units from among said audiovisual data

    recorded on said disk medium, sorts said plural pieces of selected

    audiovisual frame data in accordance with placement sequence on said

    disk medium corresponding and notifies to said reading means;

- o reading means that reads audiovisual frame data notified by said playback

    data selection means in said placement sequence on said disk medium,

    and transfers to said buffer memory control means

o buffer memory control means stores said audiovisual frame data

transferred from said reading means into said buffer memory in the

sequence for external output

o stream data generation means that combines audiovisual frame data in

said buffer memory in the sequence for external output, and outputs

externally.

Boyce discloses an apparatus for performing video data reduction with a method for

playback data selection, as seen in Figure 7 Element 65, selects the audiovisual data

that is output externally to the display device. The plural pieces of selected audiovisual

frame data is sorted in accordance with the placement sequence on said disk medium

as seen in Figure 9 Element 22 the data shuffling and framing circuit. The reading of

the data is then notified by the playback data selection means in the placement

sequence on the disk medium (Figure 7 Element 37 gets the information from the

reading of the disk medium 28) and is transferred to the buffer memory control (Figure 7

Element 901) that stores the audiovisual frame data transferred from said reading

means into said buffer. The stream data that is generated from the playback circuit is

externally outputted to the display device.

Therefore, it would have been obvious one with ordinary skill in the art at the time

of the invention was made to modify the apparatus for reproducing data from disk,

disclosed by Koudo et al, to incorporate a playback data selection that selects, reads

and stores the audiovisual data in a buffer memory as disclosed by Boyce. The addition

of the playback data selection would allow for users to control the video/audio control

method of reproducing method in a manner that would allow for more precise

reproducing and recording of video/audio data and output from the buffer memory.

[claims 9 and 10]

34. In regards to Claims 9 and 10 Koudo et al discloses the stream data generation

means as discussed in claim 5 with the additional limitations of a disk apparatus that

contains a buffer memory; however, lacks the following: a playback data selection

means that thins out and selects said audiovisual data recorded on said disk medium

and generates stream data by combining said audiovisual data in said buffer memory in

audiovisual frame units at plural times.

Boyce discloses a playback data selection that reduces and selects the

audiovisual frame by dividing the frame into various parts as seen in Figure 10.   The

division of the frame and the data reduction "thins" out the audiovisual data recorded on

the disk medium.

Therefore, it would have been obvious one with ordinary skill in the art at the time

of the invention was made to modify the apparatus for reproducing data from disk,

disclosed by Koudo et al, to incorporate an apparatus that reduces the audiovisual data

for selection purposes, as disclosed by Boyce, in order to provide an efficient and faster

way for the playback data selection to select the audiovisual data.

[claims 11 and 36]

35. In regards to Claims **11 and 36,** Koudo discloses a disk apparatus and audiovisual

data processing apparatus comprising:

- Disk medium capable of recording/playing back data (Figure 1 element 1);

- record/playback means for recording/playing back data on said disk medium

- external disk interface and apparatus means for controlling record/playback of audiovisual data for a disk apparatus (Figure 1 Element 1 shows an external disk while Element 5 and 7 depict the external disk apparatus while Element 3 shows the external disk interface of the disk apparatus);

- buffer memory for temporarily storing said audiovisual data, disposed between said external disk interface means and said external audiovisual apparatus interface (Figure 1 Element 13, Buffer RAM temporarily stores the audiovisual data while being between the external disk apparatus (Element 5 and 7) and external disk interface (Element 3);

- Buffer memory control means for controlling the input/output of said audiovisual data for said buffer memory (Figure 1 Element 30, 31, and 33 controls the input/output of the data into the buffer memory); however, lacks:

  o playback data selection means for selecting data to be output externally

  o external audiovisual apparatus interface means for controlling record/playback of said audiovisual data for an external audiovisual apparatus

  o reading means for reading audiovisual data selected by said
   playback data selection means from said disk apparatus via
   external disk interface means

  o data extraction means for extracting said audiovisual data to be
   output externally from among said audiovisual data read from said
   disk apparatus

  o stream data generation means for combining and externally
   outputting said audiovisual data extracted by said data extraction
   means.

Boyce discloses an apparatus for performing video data reduction with a method for

playback data selection, as seen in Figure 7 Element 65, selects the audiovisual data

that is output externally to the display device. The plural pieces of selected audiovisual

frame data is sorted and controlled in accordance with the placement sequence on said

disk medium as seen in Figure 9 Element 22 the data shuffling and framing circuit. The

reading of the data is then notified by the playback data selection means in the

placement sequence on the disk medium (Figure 7 Element 37 gets the information

from the reading of the disk medium 28) and is extracted and transferred to the buffer

memory control (Figure 7 Element 901) that stores the audiovisual frame data

transferred from said reading means into said buffer. The stream data that is generated

from the playback circuit is externally outputted to the display device.

  Therefore, it would have been obvious one with ordinary skill in the art at the time

of the invention was made to modify the apparatus for reproducing data from disk,

disclosed by Koudo et al, to incorporate a playback data selection that selects, reads

and stores the audiovisual data in a buffer memory as disclosed by Boyce. The addition

of the playback data selection would allow for users to control the video/audio control

method of reproducing method in a manner that would allow for more precise

reproducing and recording of video/audio data and output from the buffer memory.

Conclusion

36.. The prior art made of record and not relied upon are considered pertinent to

applicant's disclosure. The following is considered of significant interest to the

application:

- Koudo et al (US 6,304,531) ;

Contact Fax Information

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

Or faxed to:

703.872.9306 (for formal communication intended for entry)
703.308.5359 (for informal or draft communications, please label "PROPOSED"
        or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
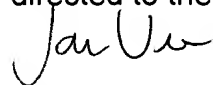Arlington, VA., Sixth Floor (Receptionist).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie J. Vent whose telephone number is (703) 305-0378.

If any attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Christopher Kelley, can be reached at (703) 305-4856.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Jamie Vent
12/09/2003

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600